

# Program Planning Template

## 2014 – 2017 Programs

### GY 4 – 6; EY 7 - 9

Program Applicable for: Ameren \_\_\_\_\_ ComEd \_\_\_\_\_ DCEO   X    
Nicor \_\_\_\_\_ People's Gas/North Shore Gas \_\_\_\_\_

Program Name	Public Sector New Construction (2014 through 2017)
Objective	Support greater energy efficiency in newly constructed public buildings through adoption of measures beyond the applicable commercial energy efficiency building code
Target Market	Public sector buildings including units of Local Government, Municipal Corporations, K-12 schools, Community Colleges, State Universities, State/Federal buildings
Program Duration	06/01/2014 through 05/31/2017 (three-year EEPS plan period)
Program Description	The New Construction (NC) program will provide grants for new and majorly renovated public sector buildings that exceed the applicable Illinois Energy Conservation Code for Commercial Buildings. The buildings will receive incentives based on electrical and natural gas savings for beyond code design based on projected energy savings using either prescriptive or custom incentive calculations. In order to encourage the use of whole building energy modeling, buildings that seek LEED Silver, Gold or Platinum, or otherwise provide an engineered computer building energy model, shall also be eligible for a High Performance Design Bonus on a square foot basis, based on the percentage beyond the code the project achieves (10%, 20%, etc.).
Eligible Customers	For electric energy savings incentives, the project must receive electric delivery service from Ameren Illinois or ComEd. For natural gas energy savings incentives, the project must receive natural gas delivery service from Ameren Illinois, Nicor Gas, Peoples Gas, or North Shore Gas.
Eligible Measures	<p><u>Prescriptive New Construction Incentives:</u></p> <ul style="list-style-type: none"><li>• Lighting Measures: Per watt/sf reduced (LPD reduced beyond code allowed maximum)</li><li>• Envelope Measures: Per improved (increased) R-Value beyond code minimum (reduced U-Factor below code maximum)</li><li>• Mechanical Measures: Varies—Per beyond code required minimum energy efficiencies for heating and cooling equipment</li><li>• Water Heater Measures: Varies—Per beyond code required minimum energy efficiencies for water heating equipment</li><li>• Kitchen Equipment Measures: Varies—Per installation of ENERGY STAR® qualified equipment</li><li>• The total list of measures can be made available upon request. DCEO reserves the right to revise the list of eligible measures as needed in accordance with current market development, technology development, EM&amp;V results, and program implementation experience.</li></ul> <p><u>Custom New Construction Incentives:</u> For non-prescriptive projects, kWh and/or therm saving totals (from whole building energy model or spreadsheet calculation).</p> <p><u>High Performance Design Bonus:</u> For non-prescriptive projects with whole building energy model savings calculations.</p>

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Implementation Strategy	DCEO will work closely with K-12, higher education, and local government associations to seek participants in the Public Sector New Construction Program. K-12 associations include: Illinois State Board of Education, Illinois Association of School Boards, Illinois Principals Association, Illinois Association of School and Business Officials, and Illinois Association of School Administrators. Higher education associations include: Illinois Community College Board, Illinois Institute of Colleges and Universities, the Illinois Green Economy Network, and Illinois Board of Higher Education among others. Local government associations include: Illinois Municipal League, Illinois Association of County Board Members and Commissioners, Township Officials of Illinois, and the Metropolitan Mayors Caucus. DCEO will also work with the Capital Development Board to identify state building projects that could participate in the Program.																																																							
Marketing Strategy	The program will be marketed through statewide K-12, higher education, and local government associations as well as the building industry (the American Society of Heating, Refrigerating and Air-Conditioning Engineers; Illinois Society of Professional Engineers; American Institute of Architects; Associated Professional Engineering Consultants; Construction Specifications Institute; U.S. Green Building Council; energy service companies, and vendors, etc.). Meetings and workshops will be held to inform potential applicants and other interested parties involved in building construction.																																																							
Incentive Levels	<p>The energy incentives will be set at a level that reflects the avoided cost of that energy on an annual basis.</p> <p><b>Prescriptive New Construction Incentive Levels:</b></p> <p>Prescriptive incentives are based on building component performance characteristics which go beyond code required minimum performance metrics. Reductions/ improvements listed in the table below are in comparison to the applicable code metrics. Selected energy savings measures with the greatest potential for persistence over the life of the building (i.e. envelope measures) have been targeted for enhanced prescriptive incentive levels.</p> <table><tr><th>Component</th><th>Incentive</th><th>Detail</th><th>Notes</th></tr><tr><td colspan="4">Lighting Measures</td></tr><tr><td>Interior Lighting</td><td>\$0.30</td><td>Per watt/sf reduced per sf building area</td><td>Lighting power density reduction vs. code allowed maximum</td></tr><tr><td colspan="4">Envelope Measures</td></tr><tr><td>Roof &amp; Walls</td><td>\$0.10</td><td>Per increase in R-value per sf of roof (wall)</td><td>Total effective R-Value increase (U-Factor reduction) vs. code</td></tr><tr><td rowspan="2">Windows</td><td>\$5.00</td><td>Per increase in R-value per sf of window</td><td>Total effective R-Value increase (U-Factor reduction) vs. code</td></tr><tr><td>\$5.00</td><td>Per decrease in SHGC per sf of window</td><td>Solar heat gain coefficient reduction vs. code allowed maximum.</td></tr><tr><td colspan="4">Mechanical Measures</td></tr><tr><td>Electric Equipment</td><td>Varies (\$\$/ ton)</td><td rowspan="2">Varies with equipment size and type</td><td rowspan="2">Based on level of improvement beyond code minimum efficiencies</td></tr><tr><td>Natural Gas Equipment</td><td>Varies (\$\$/ kBtu)</td></tr><tr><td colspan="4">Water Heater Measures</td></tr><tr><td>Natural Gas Equipment</td><td>Varies (\$\$/ unit)</td><td>Varies with equipment size and type</td><td>Based on level of improvement beyond code minimum efficiencies</td></tr><tr><td colspan="4">Kitchen Equipment Measures</td></tr><tr><td>Electric Equipment</td><td>Varies (\$\$/ unit)</td><td rowspan="2">Varies with equipment type</td><td rowspan="2">Based on purchase of ENERGY STAR® qualified equipment where applicable, beyond code controls, and proven energy savings strategies.</td></tr><tr><td>Natural Gas Equipment</td><td>Varies (\$\$/ unit)</td></tr></table>	Component	Incentive	Detail	Notes	Lighting Measures				Interior Lighting	\$0.30	Per watt/sf reduced per sf building area	Lighting power density reduction vs. code allowed maximum	Envelope Measures				Roof & Walls	\$0.10	Per increase in R-value per sf of roof (wall)	Total effective R-Value increase (U-Factor reduction) vs. code	Windows	\$5.00	Per increase in R-value per sf of window	Total effective R-Value increase (U-Factor reduction) vs. code	\$5.00	Per decrease in SHGC per sf of window	Solar heat gain coefficient reduction vs. code allowed maximum.	Mechanical Measures				Electric Equipment	Varies (\$\$/ ton)	Varies with equipment size and type	Based on level of improvement beyond code minimum efficiencies	Natural Gas Equipment	Varies (\$\$/ kBtu)	Water Heater Measures				Natural Gas Equipment	Varies (\$\$/ unit)	Varies with equipment size and type	Based on level of improvement beyond code minimum efficiencies	Kitchen Equipment Measures				Electric Equipment	Varies (\$\$/ unit)	Varies with equipment type	Based on purchase of ENERGY STAR® qualified equipment where applicable, beyond code controls, and proven energy savings strategies.	Natural Gas Equipment	Varies (\$\$/ unit)
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Incentive Levels (cont.)	<div>Custom New Construction Incentive Levels:</div> <table><tr><th colspan="2">Custom New Construction Incentives</th></tr><tr><td>Quantified Saved Electricity</td><td>Quantified Saved Natural Gas</td></tr><tr><td>\$0.12 / kWh</td><td>\$2.00 / therm</td></tr></table> <div>High Performance Design Bonus:</div> <p>The building energy model bonus incentives will be set at increasing levels based on how far beyond the applicable Illinois Energy Conservation Code for Commercial Buildings that the building will be constructed. This is to encourage participants to design the buildings to achieve the greatest level of energy efficiency. DCEO reserves the right to negotiate different incentive levels if the institution is under rules that already require achieving beyond the code.</p> <table><tr><th colspan="3">High Performance Design Bonus</th></tr><tr><th>Energy Cost Savings</th><th>Building Performance IECC 2009/ ASHRAE 90.1 2007 required</th><th>Building Performance IECC 2012/ ASHRAE 90.1 2010 required</th></tr><tr><td>5% beyond code</td><td>\$0.00 / sf</td><td>\$0.40 / sf</td></tr><tr><td>10% beyond code</td><td>\$0.20 / sf</td><td>\$0.60 / sf</td></tr><tr><td>15% beyond code</td><td>\$0.40 / sf</td><td>\$0.80 / sf</td></tr><tr><td>20% beyond code</td><td>\$0.60 / sf</td><td>\$1.00 / sf</td></tr><tr><td>25% beyond code</td><td>\$0.80 / sf</td><td>\$1.20 / sf</td></tr><tr><td>30% beyond code</td><td>\$1.00 / sf</td><td>\$1.40 / sf</td></tr></table> <p>DCEO also reserves the right to modify the incentive levels as needed in accordance with current market development, technology development, EM&amp;V results and program implementation experience.</p>	Custom New Construction Incentives		Quantified Saved Electricity	Quantified Saved Natural Gas	\$0.12 / kWh	\$2.00 / therm	High Performance Design Bonus			Energy Cost Savings	Building Performance IECC 2009/ ASHRAE 90.1 2007 required	Building Performance IECC 2012/ ASHRAE 90.1 2010 required	5% beyond code	\$0.00 / sf	\$0.40 / sf	10% beyond code	\$0.20 / sf	\$0.60 / sf	15% beyond code	\$0.40 / sf	\$0.80 / sf	20% beyond code	\$0.60 / sf	\$1.00 / sf	25% beyond code	\$0.80 / sf	\$1.20 / sf	30% beyond code	\$1.00 / sf	\$1.40 / sf
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Milestones	<ul style="list-style-type: none"><li>February 2014: Commission approval</li><li>March-May: Final program design and protocol development</li><li>June 2014: Public Sector New Construction Program launch (for 2014 through 2017)</li></ul>																														
Estimated Participation	DCEO expects significant increases in participation in the program from the entire public sector. The recent economic climate in the public sector had reduced the amount of new construction and major renovations. However, we anticipate increased construction in the coming program years based on market projections. Along with the increase in construction, we project significant increases in both energy efficiency efforts and in program participation based on program marketing efforts and industry trends. Actual participation and mix of buildings achieving various levels beyond the Illinois Energy Conservation Code may vary. The following estimates have been used for planning purposes.																														

**Estimated Budget**

Budget Information Total Program (Gas + Electric)				
Budget Category	Year 1	Year 2	Year 3	Total
Program Implementation	\$150,000	\$150,000	\$150,000	\$450,000
Portfolio Admin	\$111,111	\$111,111	\$111,111	\$333,333
Incentives	\$850,000	\$850,000	\$850,000	\$2,550,000
<b>Total</b>	<b>\$1,111,111</b>	<b>\$1,111,111</b>	<b>\$1,111,111</b>	<b>\$3,333,333</b>

Electric Budget Information Total Program				
Budget Category	Year 1	Year 2	Year 3	Total
Program Implementation	\$108,086	\$108,086	\$108,086	\$324,259
Portfolio Admin	\$80,064	\$80,064	\$80,064	\$240,192
Incentives	\$612,489	\$612,489	\$612,489	\$1,837,467
<b>Total</b>	<b>\$800,639</b>	<b>\$800,639</b>	<b>\$800,639</b>	<b>\$2,401,918</b>

**ComEd (72.2%)**

Budget Category	Year 1	Year 2	Year 3	Total
Program Implementation	\$78,073	\$78,073	\$78,073	\$234,218
Portfolio Admin	\$57,832	\$57,832	\$57,832	\$173,495
Incentives	\$442,412	\$442,412	\$442,412	\$1,327,236
<b>Total</b>	<b>\$578,316</b>	<b>\$578,316</b>	<b>\$578,316</b>	<b>\$1,734,949</b>

**Ameren (27.8%)**

Budget Category	Year 1	Year 2	Year 3	Total
Program Implementation	\$30,014	\$30,014	\$30,014	\$90,041
Portfolio Admin	\$22,232	\$22,232	\$22,232	\$66,697
Incentives	\$170,077	\$170,077	\$170,077	\$510,232
<b>Total</b>	<b>\$222,323</b>	<b>\$222,323</b>	<b>\$222,323</b>	<b>\$666,969</b>

**Estimated Budget (cont.)**

<b>Gas Budget Information Total Program</b>				
<b>Budget Category</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Total</b>
Program Implementation	\$41,914	\$41,914	\$41,914	\$125,741
Portfolio Admin	\$31,047	\$31,047	\$31,047	\$93,142
Incentives	\$237,511	\$237,511	\$237,511	\$712,533
<b>Total</b>	<b>\$310,472</b>	<b>\$310,472</b>	<b>\$310,472</b>	<b>\$931,415</b>
<b>Ameren (15.9%)</b>				
<b>Budget Category</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Total</b>
Program Implementation	\$6,670	\$6,670	\$6,670	\$20,010
Portfolio Admin	\$4,941	\$4,941	\$4,941	\$14,822
Incentives	\$37,797	\$37,797	\$37,797	\$113,390
<b>Total</b>	<b>\$49,407</b>	<b>\$49,407</b>	<b>\$49,407</b>	<b>\$148,222</b>
<b>NICOR (53.2%)</b>				
<b>Budget Category</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Total</b>
Program Implementation	\$22,285	\$22,285	\$22,285	\$66,854
Portfolio Admin	\$16,507	\$16,507	\$16,507	\$49,522
Incentives	\$126,280	\$126,280	\$126,280	\$378,840
<b>Total</b>	<b>\$165,072</b>	<b>\$165,072</b>	<b>\$165,072</b>	<b>\$495,215</b>
<b>People's Gas (25.0%)</b>				
<b>Budget Category</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Total</b>
Program Implementation	\$10,495	\$10,495	\$10,495	\$31,484
Portfolio Admin	\$7,774	\$7,774	\$7,774	\$23,321
Incentives	\$59,469	\$59,469	\$59,469	\$178,407
<b>Total</b>	<b>\$77,737</b>	<b>\$77,737</b>	<b>\$77,737</b>	<b>\$233,211</b>
<b>North Shore (5.9%)</b>				
<b>Budget Category</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Total</b>
Program Implementation	\$2,464	\$2,464	\$2,464	\$7,393
Portfolio Admin	\$1,826	\$1,826	\$1,826	\$5,477
Incentives	\$13,965	\$13,965	\$13,965	\$41,896
<b>Total</b>	<b>\$18,255</b>	<b>\$18,255</b>	<b>\$18,255</b>	<b>\$54,766</b>

## Savings Targets

	Year 1		Year 2		Year 3		Total	
	MWh	MW	MWh	MW	MWh	MW	MWh	MW
Ameren (27.8%)	1,677	0.84	1,677	0.84	1,677	0.84	5,031	2.52
ComEd (72.2%)	4,150	1.91	4,150	1.91	4,150	1.91	12,451	5.73
<b>Total Gross Electric Savings</b>	<b>5,827</b>	<b>2.75</b>	<b>5,827</b>	<b>2.75</b>	<b>5,827</b>	<b>2.75</b>	<b>17,482</b>	<b>8.25</b>
<b>Total Net Electric Savings (80% NTG)</b>	<b>4,662</b>	<b>2.20</b>	<b>4,662</b>	<b>2.20</b>	<b>4,662</b>	<b>2.20</b>	<b>13,986</b>	<b>6.60</b>

	Year 1	Year 2	Year 3	Total
	Therms	Therms	Therms	Therms
Ameren (15.9%)	19,760	19,760	19,760	59,280
Nicor (53.2%)	81,006	81,006	81,006	243,017
Peoples (25.0%)	31,091	31,091	31,091	93,272
North Shore (5.9%)	7,301	7,301	7,301	21,904
<b>Total Gross Gas Savings</b>	<b>139,157</b>	<b>139,157</b>	<b>139,157</b>	<b>417,472</b>
<b>Total Net Gas Savings (80% NTG)</b>	<b>111,326</b>	<b>111,326</b>	<b>111,326</b>	<b>333,978</b>

It is assumed that the electricity and natural gas savings will occur in the year following the year in which the projects are funded to account for the time it takes developers to complete construction.

These savings estimates were developed from the following data which comes from the past three years of the Public Sector New Construction program, reduced by 15% to account for the increased energy efficiency required to meet the minimum code compliance under the most recent version of the Illinois Energy Conservation Code.

Estimated Annual Savings		
Therms/sf	MWh/sf	MW/sf
0.127	.0058	0.000003

## Other Program Metrics

	Statewide
TRC	0.87
TRC w/NEBs	0.96